

**Remarks**

Applicant thanks the Examiner for the courtesies extended to the undersigned during the telephone interview. Applicant previously filed an interview summary regarding the interview.

Applicant hereby adds new claims 35-36. Accordingly, claims 1-36 are pending in the present application.

Claims 1, 2, 10, 12, 16, 18, and 25-29 stand rejected under 35 USC 103(a) for obviousness over Kim in view of U.S. Patent No. 5,774,595 to Kim in view of U.S. Patent No. 5,471,535 to Ikezawa. Claims 3-5, 7-9, 13-14, 17, and 30 stand rejected under 35 USC 103(a) for obviousness over Kim in view of Ikezawa and further in view of U.S. Patent No. 4,843,630 to Catros. Claims 6 and 15 stand rejected under 35 USC 103(a) for obviousness over Kim in view of Ikezawa and Catros and further in view of U.S. Patent No. 6,332,034 to Makram-Ebeid. Claims 11 and 19 stand rejected under 35 USC 103(a) for obviousness over Kim in view of Ikezawa and further in view of U.S. Patent No. 6,055,337 to Kim. Claims 20-23 and 31-32 stand rejected under 35 USC 103(a) for obviousness over Catros in view of Ikezawa and further in view of Makram-Ebeid.

Applicant respectfully traverses the rejections and urges allowance of the present application.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See, e.g., MPEP §2143 (8<sup>th</sup> ed.).

Referring to claim 1, the Office states on page 4 of the Action that Kim fails to disclose individual contours being detected responsive to user input of a user. The Office relies upon the teachings of Ikezawa to cure the deficiencies of Kim. The reliance is misplaced and the Office has failed to identify or establish proper motivation for combining the reference teachings. Claim 1 is allowable for at least this reason.

More specifically, Kim is directed towards a method of representing a

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contour of an object for a *video signal encoder*. As set forth in col. 1, line 12 - col. 2, line 2 of Kim, some applications (e.g., high definition television) need a large amount of data to define each frame while the bandwidth of conventional communication channels is limited. Kim states that it is inevitable to compress or reduce the volume of data through the use of compression techniques. Kim discloses that some encoding techniques to reduce the volume of data include an object-oriented analysis-synthesis coding technique wherein an input video image is divided into parameters for defining motion, contour and pixel data which are processed through different *encoding channels*. Kim describes prior art polygonal approximation and B-spline approximation methods, and the respective disadvantages thereof and then provides as set forth in col. 1, line 65 - col. 2, line 2, an *improved contour approximation method for use in a video signal encoder capable of reducing approximation errors in the encoded contour information.*

To the contrary, Ikezawa is directed towards a method for detecting a contour of a given subject to be separated from images and apparatus for separating a given subject image from a scene. As set forth in col. 1, lines 10-20 of Ikezawa, the reference is directed towards separation of a given subject image from a scene and merging the separated subject image into another image background scene. The separation and merging is disclosed as been used in a process for preparation of a picture such as a movie or commercial poster. As set forth in col. 1, lines 36-40 of Ikezawa, the above-described synthesizing may occur in an *editing phase*.

As is clear from the above, Kim and Ikezawa are directed towards entirely different systems and methods for achieving different results. More specifically, Kim is directed towards an encoding system for reducing the volume of data to be communicated in view of limitations in communications bandwidth. Ikezawa is directed towards a system for extracting a given subject image from one scene and merging the extracted scene into another image background during editing. In Ikezawa, user input is desired to select points during the selection process for extraction of the given subject image. However, *Kim is not concerned with selection or extraction of a subject image from a scene but is rather concerned with compression of data content of entire frames to provide communications of large amounts of data over limited bandwidth resources.* There is no motivation to

interject the user selection teachings of Ikezawa concerning extraction of a given subject image from a scene, but rather, Kim is directed towards compression of entire scenes in plural frames. There is no motivation to combine the reference teachings and the Office has failed to establish a *prima facie* 103 rejection for at least this reason.

Pages 4-5 of the Action state that the motivation to combine the reference teachings is so that a user can specify a portion of an image to separate. However, as is clear from the teachings of Kim, the Kim reference is directed towards compression of data of entire frames of data. *The encoder arrangement of Kim is silent regarding any teaching towards selection of an image to separate as alleged by the Office.* The record is also void of any rationale as to why Kim would be modified to allow user input for selection and separation of a subject. One concerned with encoding of entire frames of data for compression and communication of the compressed data would not look to a reference concerned with teachings directed towards selection of a given subject image from a background scene. The only motivation results from improper reliance upon Applicant's disclosure. However, the motivation for forming the combination must be something other than hindsight reconstruction based on using Applicant's invention as a road map for such a combination. See, e.g., *Interconnect Planning Corp. v. Feil*, 227 USPQ 543, 551 (Fed. Cir. 1985); *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990).

Kim is directed towards encoding of data for compression for later reconstruction of the data and the purpose of Kim would be destroyed if the subject matter of Kim were modified pursuant to the Office Action to permit user specification of points as alleged to be disclosed by Ikezawa. In particular, the combination would require significant modification of Kim, require significant user intervention during operation, and at a minimum would drastically slow the encoding process of Kim to unacceptable speeds which defeat the efficiencies gained by encoding in the first instance. To modify Kim per the teachings of Ikezawa as alleged by the Office would destroy the purpose of the invention of the Smith patent. *In re Fitch*, 972 F.2d 1260, 1265 n.12, 23 USPQ2d 1780, 1783 n.12 (Fed. Cir. 1992) (*stating that a proposed modification is inappropriate for an obviousness inquiry when the modification renders the prior art inoperable for its*

*intended purpose).*

Further, the Office has failed to identify any evidence or rationale why one would seek to modify a reference concerned with compression of an entire frame with the ability to separate a given subject image from a scene. At least in view of the numerous drawbacks of the extensive modification of Kim as required by the combination set forth in the Office Action, there is no motivation to modify the reference teachings in support of the rejection and the only motivation results from improper reliance upon Applicant's disclosure.

The Federal Circuit discussed proper motivation *In re Lee*, 61 USPQ 2d 1430 (Fed. Cir. 2002). The motivation identified in the Office Action is akin to the conclusory statements set forth in *In re Lee* which were found to fail to provide the requisite motivation to support an obviousness rejection. The Court in *In re Lee* stated the factual inquiry whether to combine references must be through and searching. It must be based on objective evidence of record. The Court in *In re Fritch*, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992) stated motivation is provided only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. The *Lee* Court stated that the Examiner's conclusory statements in the *Lee* case do not adequately address the issue of motivation to combine. The Court additionally stated that the factual question of motivation is material to patentability and can not be resolved on subjective belief and unknown authority. *The Court further stated that the determination of patentability must be based on evidence.*

In the instant case, the record is entirely devoid of any evidence to support motivation to combine the teachings apart from the bald conclusory statements of the Examiner which are insufficient for proper motivation as set forth by the Federal Circuit. The Office cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims but must set forth objective rationale on which it relied. In fact, the references are directed towards entirely different systems with teachings which are inapplicable to each other. *There is no motivation to modify a reference concerned with encoding of entire frames to compress the data in view of bandwidth concerns with the ability to receive user input to select a subject image from a scene for removal of the subject image from*

*the scene.* The rejection of claim 1 is improper for at least this reason.

The claims which depend from independent claim 1 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 12, there is no motivation to combine the disparate teachings of Izekawa regarding identification of a subject image of a scene with the method of Kim directed towards compression of relatively large amounts of data of entire frames for communication using systems of relatively limited bandwidth. The Office has failed to establish a proper *prima facie* obviousness rejection and claim 12 is allowable for at least this reason.

Also referring to claim 12, the prior art fails to disclose or suggest the claimed conversion of the graphical information of the data structure from a first format to a second format. Kim is only concerned with compression of an entirety of the data of a frame and is not concerned with detection of contours *responsive to user input*, determining vertices associated with the contours, the encoding of the vertices in a data structure or the conversion of the graphical information of the data structure as claimed. The 103 rejection is improper and the Kim fails to disclose positively-recited limitations of claim 12. Claim 12 is allowable for at least the above-mentioned reasons.

The claims which depend from independent claim 12 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

For example, new claim 35 recites extracting the graphical information defined by the boundary information from the graphical image. Kim is concerned with *compression of data of entire frames* and is not concerned with *extraction of graphical information defined by the boundary information from the graphical image* as claimed. There is no motivation to modify Kim to arrive at the limitations of claim 35 and claim 35 is allowable for at least this additional reason.

Referring to claim 20, Applicant previously traversed the combination of Makram-Ebeid with the teachings of Catros in support of the 103 rejection. On pages 2-3 of the Action, the Office alleges that "it is commonly known that

contours and regions are very closely related." Applicant disagrees and respectfully requests that the Office support the bald allegation thereof by submitting an affidavit. "[A]ssertions of technical facts in areas of esoteric technology must always be supported by citation of some reference work" and "allegations concerning specific 'knowledge' of the prior art, which might be peculiar to a particular art should also be supported." *In re Ahlert*, 424 F.2d 1088, 165 USPQ 418, 420-421 (CCPA 1970). In addition, Applicants traverse the statement that contours define regions. Referring to Fig. 2B, the depicted contour C merely discloses a line traversing points A and B and fails to define a region as baldly alleged.

In addition, apart from bald, unsupported allegations of the Office, there is no evidence of record that Catros is concerned with elimination of interfaces as allegedly taught by Makram-Ebeid. According to the above-recited authority the allegations with a lack of evidence is insufficient to establish proper motivation.

Applicant also addresses the statement in the present Office Action on page 2 erroneously characterizing Applicant's argument regarding lack of motivation as set forth in the Office Action response mailed March 3, 2004 that Catros is only concerned with contours and Makram-Ebeid is only concerned with regions. In particular, Applicant reasserts that Catros is concerned with bridging disjointed ends and is devoid of any disclosure regarding regions or merging of regions as erroneously alleged in the Action. Catros provides teachings for bridging disjointed ends. There is absolutely no evidence of record that the method or system of Catros is faulty requiring additional reference teachings or that the teachings of Catros would be improved if the teachings were combined. Applicant submits that one of skill in the art concerned with bridging disjointed ends would not look to reference teachings concerning merging of regions. The only rationale regarding the combination of prior art teachings is improper reliance upon Applicant's disclosure which is insufficient to support a proper 103 rejection.

The legal concept of *prima facie* obviousness is a procedural tool of examination and allocates who has the burden of going forward with production of evidence in each step of the examination process. MPEP §2142 (8<sup>th</sup> Ed., revision no. 2). MPEP §§2142 and 2143 address this legal concept extensively. The examiner bears the initial burden of factually supporting any *prima facie* conclusion

of obviousness, that is, the initial burden is *on the examiner to provide some suggestion of the desirability of doing what the inventor has done*. MPEP §2142 (8<sup>th</sup> Ed., revision no. 2). If the examiner does not produce a *prima facie* case, the Applicant is under no obligation to submit evidence of non-obviousness. MPEP §2142 (8<sup>th</sup> Ed., revision no. 2) (emphasis added). The record is devoid of factual support to support the allegations of the present Action in support of obviousness and the rejection of claim 20 is improper for this additional reason.

The claims which depend from independent claim 20 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 33, the computer comprises *processing circuitry configured to detect a plurality of contours between respective pairs of vertices responsive to respective user input received via the user interface*. The Action relies upon the teachings of Ikezawa to cure the deficiencies of Kim. The combination is improper. In particular, Kim is directed towards *an encoding system to compress data of entire frames and is not concerned with processing user input to detect a plurality of contours*. Modifying Kim to account for or permit a user to assist with detection of contours would destroy the compression teachings of Kim with respect to compression for entire frames and would greatly adversely impact the compression of Kim with no added benefit. The Office has failed to meet the respective burden of identifying evidence to support a proper *prima facie* 103 rejection and claim 33 is allowable for at least this reason.

The claims which depend from independent claim 33 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Applicant hereby adds new claims 35-36. The new claims and claim amendments are supported by Figs. 1-2 and 6-8 and the associated specification teachings of the originally-filed application.

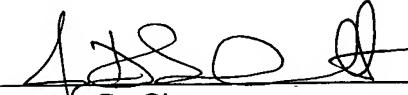
Applicant respectfully requests allowance of all pending claims.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is

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available for telephone consultation at any time during normal business hours  
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